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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,943	08/20/2001	Shigeru Nakamura	500.40513X00	5922

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EXAMINER	
ORTIZ CRIADO, JORGE L	
ART UNIT	**PAPER NUMBER**
2655	8

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/913,943	NAKAMURA ET AL.	
	Examiner	Art Unit	
	Jorge L Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *drwaing Sketch*.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1,6 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kajiyama et al. U.S. Patent No. 6,522,990.

Regarding claim 1, Kajiyama et al. discloses an optical information recording and reproduction apparatus (See Abstract; Fig. 2), comprising:

a setting portion of an optical information medium (Fig. 2);

a light source where a plurality of semiconductor laser chips are mounted on an identical surface (See col. 7, lines 50-55; col. 9, line 1-20; Figs. 2- #1a,1b; 4-#1c)

optical convergence means for converging each of a plurality of laser beams radiated from each of laser chips into an optical spot on said optical information medium when the optical information medium is set to said setting portion (See col. 7, lines 50-67; Fig. 2); and

tracking servo means for moving the optical convergence means in a tracking servo direction perpendicular to a track direction such that the optical spot accurately scans the track of the optical information medium (See col. 8, lines 18-33; Fig. 2,3),

wherein a direction of alignment of said plurality of semiconductor laser chips is substantially perpendicular to the tracking servo direction (See col. 9, lines 1-20; Figs. 2,4)

Regarding claim 6, Kajiyama et al. discloses an optical head used in an optical information recording and reproduction apparatus that performs tracking servo to record and reproduces information when an optical spot is radiated on an optical information medium (See col. 7 line 50 to col. 8, line 39; Figs. 2,3), wherein the optical head comprises:

a light source on which each of semiconductor laser chips having a plurality of wavelengths is mounted on an identical surface (See col. 7, lines 50-55; col. 9, line 1-20; Figs. 2-#1a,1b; 4-#1c);

and optical convergence means for converging each of a plurality of laser beams radiated from each of the laser chip on said optical information medium as the optical spot (See col. 7, lines 50-67; Fig. 2), and

a direction of alignment of said plurality of semiconductor laser chips is substantially perpendicular to said tracking servo direction (See col. 9, lines 1-20; Figs. 2,4)

Regarding claim 1, Kajiyama et al. discloses an optical information recording and reproduction apparatus (See Abstract; Fig. 2), comprising:

a setting portion of an optical information medium (Fig. 2);

a light source where a plurality of semiconductor laser chips are mounted on an identical surface (See col. 7, lines 50-55; col. 9, line 1-20; Figs. 2- #1a,1b; 4-#1c)

optical convergence means for converging each of a plurality of laser beams radiated from each of laser chips into an optical spot on said optical information medium when the optical information medium is set to said setting portion (See col. 7, lines 50-67; Fig. 2); and

tracking servo means for moving the optical convergence means in a tracking servo direction perpendicular to a track direction such that the optical spot accurately scans the track of the optical information medium (See col. 8, lines 18-33; Fig. 2,3),

wherein a direction of alignment of the optical spots formed on the optical information medium is substantially perpendicular to the tracking servo direction (See col. 9, lines 1-20; Figs. 2,4)

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claim 2-5 and 7-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Kajiyama et al. U.S. Patent No. 6,522,990 in view of Uchizaki et al. U.S. patent No. 6,646,975

Regarding claim 2, Kajiyama et al. discloses an optical information recording and reproduction apparatus (See col. 7 line 50 to col. 8, line 39; Figs. 2,3) that comprises:

a first reflection plane that reflects the laser beams radiated from each of the plurality of the semiconductor laser chips (See col. 7, liners 62-65; Fig. 2-# 2) and

a second reflection plane that guides the laser beams from the first reflection plane to the optical convergence means (See col. 7, liners 62-65; Fig. 2-# 4),

Kajiyama et al. fails disclose wherein the first reflection plane is formed on the same plate as the mount surface for the laser chips.

However this feature is well known in the art as evidenced by Uchizaki et al., which discloses an optical information recording and reproduction apparatus having a first reflection plane that reflects the laser beams radiated from each of a plurality of the semiconductor laser chips wherein the first reflection plane is formed on the same plate as the mount surface for the laser chips (See col. 12, line 34 to col.13 line 8; Fig. 8)

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to make a first reflection plane formed on the same plate as the mount surface for the laser chips, in order to enable realization of a very thin and compact optical unit by integrating the semiconductor chips as suggested by Uchizaki et al.

Regarding claim 3, The combination of Kajiyama et al. with Uchizaki et al. would show wherein the laser beams from the first reflection plane is made to be incident from the tracking servo direction to the second reflection plane, and a plurality of the semiconductor laser chips are arranged in an inner plane direction parallel to an optical information medium plan (See Kajiyama et al. col. 7, liners 62-65; col. 9, lines 1-20; Figs. 2,4).

Regarding claim 4, The combination of Kajiyama et al. with Uchizaki et al. would show wherein the laser beams from the first reflection plane is made to be incident from the track direction to the second reflection plane, and a plurality of the semiconductor laser chips are arranged in an inner plane direction perpendicular to the optical information medium plane (See Kajiyama et al. col. 7, liners 62-65; col. 9, lines 1-20; Figs. 2,4).

Regarding claim 5, 7 and 10, Kajiyama et al. discloses all the limitations based on claim 1 and 6 as outlined above.

Kajiyama et al. discloses a first reflection plane for reflecting the laser beam radiated from each of a plurality of the semiconductor laser chips; and a second reflection laser beam from the first optical convergence means plane (See Kajiyama et al. col. 7, liners 62-65; col. 9, lines 1-20; Figs. 2,4)

Kajiyama et al. fails to disclose wherein photodetecting elements for receiving each of a plurality of the laser beams radiated from each of the laser chips are provided on a surface where said laser chips are mounted and wherein the first reflection plane is formed on the same plate as the mount surface for the laser chips

However this feature is well known in the art as evidenced by Uchizaki et al., which discloses an optical information recording and reproduction apparatus having a first reflection plane that reflects the laser beams radiated from each of a plurality of the semiconductor laser chips wherein the first reflection plane is formed on the same plate as the mount surface for the laser chips and wherein photodetecting elements for receiving each of a plurality of the laser

beams radiated from each of the laser chips are provided on a surface where said laser chips are mounted (See col. 12, line 34 to col.13 line 8; Fig. 8).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to make a first reflection plane formed on the same plate as the mount surface for the laser chips, in order to enable realization of a very thin and compact optical unit by integrating the semiconductor chips and the photodetectors as suggested by Uchizaki et al.

Regarding claim 8, The combination of Kajiyama et al. with Uchizaki et al. would show wherein the laser beams from the first reflection plane is made to be incident from the tracking servo direction to the second reflection plane for guiding the reflection plane to the wherein the first reflection same as the mount surface plane, and a plurality of the semiconductor laser chips are arranged in an inner plane direction parallel to an optical information medium plane (See Kajiyama et al. col. 7, liners 62-65; col. 9, lines 1-20; Figs. 2,4).

Regarding claim 9, The combination of Kajiyama et al. with Uchizaki et al. would show wherein the laser beams from the first reflection plane is made to be incident from the track direction to the second reflection plane, and a plurality of the semiconductor laser chips are arranged in an inner plane direction perpendicular to the optical information medium plane (See Kajiyama et al. col. 7, liners 62-65; col. 9, lines 1-20; Figs. 2,4).

Response to Arguments

5. Applicant's arguments filed 3/18/2004 have been fully considered but they are not persuasive.

Applicant's response to the rejection of claims 1, 6 and 16 as unpatentable over Kajiyama et al.

Applicants argue that Kajiyama et al. does not disclose or suggest wherein a direction of alignment of said plurality of semiconductor laser chips is substantially perpendicular to the tracking servo direction.

The Examiner cannot concur because Kajiyama et al. discloses wherein a direction of alignment of said plurality of semiconductor laser chips is substantially perpendicular to the tracking servo direction wherein a direction of alignment of the optical spots formed on the optical information medium is substantially perpendicular to the tracking servo direction (See col. 9, lines 1-20; Fig 2,4; See the Attached Sketch of Fig. 1, labeled Sketch 1A)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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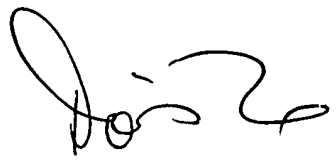

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